

PATENT ABSTRACTS OF JAPAN

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(54) DISCHARGE LAMP LIGHTING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent the increase of a current flowing in filaments, resulting from the short life of a discharge lamp, without using a step-up transformer even when using an annular fluorescent lamp for the discharge lamp, and reduce the size and cost of a discharge lamp lighting device.

SOLUTION: A discharge lamp lighting device includes a DC power supply 1A, FETs Q21, Q22 connected in series to each other and connected in parallel to the DC power supply 1A, FETs Q23, Q24 connected in series to each other and connected in parallel to the FETs Q21, Q22 and a load resonance circuit 3A consisting of a discharge lamp FL, a resonance inductor L31 and a resonance capacitor C31 and having a value, obtained by dividing voltage across the discharge lamp FL during rated lighting by voltage output from the DC power supply 1A, set to be 0.48 or more for carrying a preheating current in filaments in the discharge lamp FL with the resonance of the inductor L31 and the capacitor C31 and a control circuit 4A for turning alternately on/off the FETs Q21, Q24 and the FETs Q22, Q23 through high frequency control signals to gates to control the discharge lamp FL to be lit.

